

### **REMARKS**

This responds to the Office Action mailed on June 13, 2005.

Claims 1 and 3 are amended, claim 2 is are canceled; as a result, claims 1, 3-13 and 23-33 are now pending in this application.

#### **§102 Rejection of the Claims**

Claims 1, 2 and 6 were rejected under 35 USC § 102(b) as being anticipated by Karnezos (U.S. 5,409,865). Applicant respectfully traverses this rejection and requests the Office to consider the following.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” (*Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), M.P.E.P. §2131, 8<sup>th</sup> Ed., Rev. 1).

Claim 1 as amended includes the limitation taken from claim 2 of “build-up layers disposed on said microelectronic die active surface and said heat spreader first surface”. Karnezos’ encapsulation material 104 cannot be construed to be a build-up layer, let alone that it is “on ... said heat spreader first surface”. Withdrawal of the rejections is respectfully requested.

#### **§103 Rejection of the Claims**

Claims 3, 4, 11 and 12 were rejected under 35 USC § 103(a) as being unpatentable over Karnezos in view of Shibamoto et al. (U.S. 6,563,212 B1). Applicant respectfully traverses the rejection and requests the Office to consider the following.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (M.P.E.P. § 2143 8<sup>th</sup> Ed, Rev.1).

Regarding claims 3 and 4, Applicant reiterates that Karnezos does not teach of "build-up layers disposed on said microelectronic die active surface and said heat spreader first surface". (Claim 1, from which claims 3 and 4 depende). Karnezos' encapsulation material 104 cannot be construed to be a build-up layer, let alone that it is "on ... said heat spreader first surface". Shibamoto has nothing to do with a recessed heat spreader and cannot be combined with Karnezos for that reason. Withdrawal of the rejections is respectfully requested.

Regarding claim 11, the Office Action admits that "Karnezos fails to teach the limitation of at least one conductive trace disposed on at least one dielectric layer." (Office Action at page 4). Applicant agrees, but reiterates that Shibamoto adds nothing to teach the limitation, also in claim 11, of a

build-up layers disposed on said microelectronic die active surface and said heat spreader first surface, wherein said build-up layers comprise at least one dielectric layer abutting said at least one microelectronic die active surface and said heat spreader first surface and at least one conductive trace disposed on said at least one dielectric layer....

(Claim 11). Because Karnezos is a wire-bond technology and because Shibamoto is not, Applicant respectfully asserts that suggestion to make the claimed combination and the is not found in the cited references, rather it is based on Applicant's disclosure. Withdrawal of the rejections is respectfully requested.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney, John Greaves at (801) 278-9171, or Applicant's below-named representative at (612) 373-6970 to facilitate the prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

QING MA ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
Attorneys for Intel Corporation  
P.O. Box 2938  
Minneapolis, Minnesota 55402  
(612) 349-9592

Date Aug. 15, 2005

By Ann M. McCrackin  
Ann M. McCrackin  
Reg. No. 42,858

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 15th day of August, 2005.

Zhakalazky M. Carrion  
Name

Zhakalazky Carrion  
Signature